# Journal of Mathematics Education at Teachers College

Fall – Winter 2011

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# The Journal of Mathematics Education at Teachers College is a publication of the Program in Mathematics and Education at Teachers College Columbia University in the City of New York.

**Guest Editor** Ms. Diane R. Murray

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#### **On-Line Editor**

Ms. Diane R. Murray

## Layout

Ms. Sonja Hubbert

#### Photo Editor and Cover Design Mr. Mark Causapin

Dr. Robert Taylor was selected by the Teachers College sponsored Teachers for East Africa program to teach mathematics of Uganda's Makerere University. He re turned to TC as an instructor in the Department of Mathematics, Statistics, and Computing in Education where he developed an innovative programming language (FPL) intended to introduce educators to the then new field of computer programming. His seminal work entitled *Computers: Tutor, Tool, Tutee* led to leadership in t he new field of computers in education. Dr. Taylor completed 33 years as a member of the Teachers College faculty in 2009.

Dr. Carl N. Shuster com pleted the doctor ate at Teachers College in 1940 under the guidan ce of William David Reeve. Shuster joined the TC faculty at Reeve's invitation and soon was recognized as the nation's leading advocate of the use of tradition al technology, especially measurement technology, in the mathematics classroom. Dr. Shuster served as President of the National Council of Mathematics from 1946 to 1 948 and concluded his career as Distinguished Professor of Mathematics at Trenton State University.

#### Aims and Scope

The *JMETC* is a re-creation of an earlier publication by the Teachers College Columbia University Program in Math ematics. As a peer-rev iewed, semiannual journal, it is intended to provide dissemination opportunities for writers of practice-based or research contributions to the general field of mathematics education. Each issue of the *JMETC* will focus upon an educational theme. The themes planned for the 2012 Spr ing-Summer and 2012 Fall-Winter issues are: *Evaluation* and *Equity*, respectively.

*JMETC* readers are educators from pre K-12 through college and university levels, and from many different disciplines and job position ns—teachers, principals, superintendents, professors of educ ation, and other leaders in education. Articles to app ear in the *JMETC* include r esearch reports, commentaries on practice, historical an alyses and responses to issues and recommendations of professional interest.

#### **Manuscript Submission**

*JMETC* seeks conversational manuscripts (2,500-3,000 words in length ) that are insightful and helpful to mathemat ics educators. Artic les should contain fresh information, possibly research-based, that gives practical guidance readers can use to improve practice. Examples from classroom experience are encouraged. Articles must not have been a ccepted for publication elsewhere. To keep the submission and review pro cess as efficient as possible, all manuscripts may be submitted electronically at www.tc.edu/jmetc.

**Abstract and keywords.** All manuscripts must include a n abstract with keywords. Abstracts d escribing the essence of the manuscript should not exceed 150 words. Authors sho uld select key words from the menu on the manuscript submission system so that readers can search for the article after it is published. All inquiries and materials should be sub mitted to Ms. Krystle Hecker at P.O. Box 210, Teachers College Columbia University, 525 W. 120<sup>th</sup> St., New York, NY 10027 or at JMETC@tc.columbia.edu

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# FOREWORD

# Honoring the Past—Anticipating the Future

The fourth issue of the *Journal of Mathematics Education at Teachers College* continues the theme of highlighting issues and individuals of importance to the field of mathematics education. The *Journal* is a resurrection of an earlier publication of the Program in Mathematics entitled *Contributions to Mathematics Education*. It is devoted to the publication of articles related to both practice-based issues and research of interest to today's broad spectrum of mathematics education professionals.

The Journal of Mathematics Education at Teachers College (JMETC) should provide opportunities for peer-reviewed publication for novice as well as experienced mathematics educators. Each issue of the JMETC will focus upon a theme to permit contributors to prepare thematic articles for future issues. The theme selected for this issue of the JMETC is Technology in Mathematics Education. Future themes include—Evaluation (Spring 2012), and Equity (Fall 2012). All issues and themes will emphasize mathematics and its teaching.

J. Philip Smith Bruce R. Vogeli Erica Walker

# Journal of Mathematics Education at Teachers College

#### **Call for Papers**

The "theme" of the fall issue of the *Journal of Mathematics Education at Teachers College* will be *Evaluation*. This "call for papers" is an invitation to mathematics education professionals, especially Teachers College students, alumni and friends, to submit articles of approximately 2500-3000 words describing research, experiments, projects, innovations, or practices related to evaluation in mathematics education. Articles should be submitted to Ms. Krystle Hecker at JMETC@tc.columbia.edu by January 21, 2012. The spring issue's guest editor, Ms. Heather Gould, will send contributed articles to editorial panels for "blind review." Reviews will be completed by February 1, 2012, and final drafts of selected papers are to be submitted by March 1, 2012. Publication is expected by April 15, 2012.

#### **Call for Volunteers**

This *Call for Volunteers* is an invitation to mathematics educators with experience in reading/writing professional papers to join the editorial/review panels for the spring 2012 and subsequent issues of *JMETC*. Reviewers are expected to complete assigned reviews no later than 3 weeks from receipt of the manuscripts in order to expedite the publication process. Reviewers are responsible for editorial suggestions, fact and citations review, and identification of similar works that may be helpful to contributors whose submissions seem appropriate for publication. Neither authors' nor reviewers' names and affiliations will be shared; however, editors'/reviewers' comments may be sent to contributors of manuscripts to guide further submissions without identifying the editor/reviewer.

If you wish to be considered for review assignments, please request a *Reviewer Information Form*. Return the completed form to Ms. Krystle Hecker at hecker@tc.edu or Teachers College Columbia University, 525 W 120th St., Box 210, New York, NY 10027.

#### Looking Ahead

Anticipated themes for future issues are:

Spring 2012	Evaluation
Fall 2012	Equity
Spring 2013	Leadership
Fall 2013	Modeling
Spring 2014	Teaching Aids

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